May Issue, 1940—No. 174
Control Series—Published Quarterly

Commercial Fertilizers, Commercial Feeds
Agricultural Liming Materials
Insecticides and Fungicides

REPORT OF VITAMIN D ASSAYS

Inspection and Regulatory Service
Maryland State Board of Agriculture
College Park, Maryland

Entered at College Park (Md.) Post Office as Second Class Matter

REPORT OF VITAMIN D ASSAYS

The testing of products sold in Maryland as sources of vitamin D for animal feeding has been a continuous activity of the Maryland State Inspection Service since 1932. Publications dealing wholly or in part with this work have been issued periodically. Though this phase of the activities of the Inspection Service was inaugurated in 1932 and the results of certain tests were published in November of that year, registration of vitamin D supplements was not required until January 1933. Since that time, all vitamin D supplements have been registered annually, according to the provisions of the Feed Stuff Law of Maryland.

Since January 1, 1934, a specific guarantee of minimum vitamin D potency has been required for each brand. This guarantee consisted of a statement of the percentage of the product which, when included in a specified vitamin D-free ration and fed to chicks according to a rigidly prescribed procedure, would provide normal calcification of the tibia. The procedure referred to was adopted in 1933 by the Association of Official Agricultural Chemists as a tentative method for the assay of cod liver oils and similar products for antirachitic activity (vitamin D content). A rather complete summary of the first four years work was published in May 1937 as State Inspection Service Bulletin No. 162.

During 1936 the A. O. A. C. chick assay method was revised so as to provide for the evaluation of vitamin D potency in terms of units, and in conjunction with this the A. O. A. C. chick unit was established.

Guarantees in terms of A. O. A. C. chick units have been required since January 1, 1937.

Since 1932, there has been a tremendous increase in the use of vitamin D supplements. This fact is forcibly indicated by the change in the formulation of commercial poultry mashes. In 1932 very few mashes contained a vitamin D supplement; at the present time the great majority have one or more ingredients included primarily as a source of vitamin D.

There has been a gradual increase in the number of brands of vitamin D carriers registered each year, and likewise an increase in the variety of types of products. The most notable and consistent tendency in this connection has been the increase in the registrations of blended and fortified oils. The diversity of types of products and potencies is evident from inspection of Table II below where the various brands registered in Maryland during the first four months of 1940 are listed.

In Table I are presented the results of recently completed official samples of a limited number of products. All the samples were collected during January or early February, 1940. The term "guarantee sustained" under the column headed "Result of Test" signifies that the product was found to contain the guaranteed number of A. O. A. C. units per gram.

TABLE I

Manufacturer	Brand Name	Guarantee A.O.A.C. Chick Units Per Gram	Result of Test
The Atlantic Supply Company Baltimore, Maryland	Cod Liver Oil, Non-destearinated	85	Guarantee sustained
F. E. Booth Company San Francisco, California	Crescent Brand Sardilene	100	Guarantee sustained
Chas. L. Huisking & Company, Inc. New York, N. Y.	Vitamin Brand Fortified Cod Liver Oil	400	Guarantee sustained
King Brothers and Company Philadelphia, Pennsylvania	King's Xtra Cod Liver Oil	85	Guarantee sustained
National Oil Products Co., Inc. Philadelphia, Pennsylvania	Nopco X	200	Guarantee sustained
Pratt Food Company Philadelphia, Pennsylvania	Pratt's Cod Liver Oil	85	Guarantee sustained
Silmo Chemical Corporation Vineland, New Jersey	Silmo X Silmo XX	200 400	Guarantee sustained Guarantee sustained

TABLE II
Vitamin D Supplements Registered in Maryland, 1940
(To date of Publication)

Manufacturer	Brand Name	Guarantee A.O.A.C. Chick Units Per Gram
The Atlantic Supply Company Foot of Hull Street Baltimore, Maryland	Filtered Poultry Cod Liver Oil	85
California Packing Corporation 101 California Street San Francisco, California	Biotol (Brand) Biologically Tested Sardine Oil	85
The G. E. Conkey Company 6529 Broadway Cleveland, Ohio	Conkey's Y-O	20
The Fox Company R. R. Boulevard Newfield, New Jersey	Fox Medicinal Cod Liver Oil Fox Special U. S. P. Cod Liver Oil	85 85
Gunning & Gunning 601 West 26th Street New York, N. Y.	Vi-Test Cod Liver Oil	85

The Fox Company R. R. Boulevard Newfield, New Jersey	Fox Medicinal Cod Liver Oil	85
	Fox Special U. S. P. Cod Liver Oil	85
Gunning & Gunning 601 West 26th Street New York, N. Y.	Vi-Test Cod Liver Oil	85
Chas. L. Huisking & Company, Inc. 155 Varick Street New York, N. Y.	Vitamine Brand Cod Liver Oil, U. S. P.	125
	Vitamine Brand Cod Liver Oil, Fortified, Not U. S. P.	400
	Vitamine Brand Cod Liver Oil, U. S. P.	85
Industrial Oil Products Corp. 5641 South Riverside Drive Los Angeles, California	HyDeeOyl	85
King Brothers & Company The Bourse Philadelphia, Pennsylvania	King's Xtra Pure Filtered Cod Liver Oil Not U. S. P.	85
	King's Medicinal Cod Liver Oil, Destearinated	85
	King's Xtra U. S. P. Cod Liver Oil, Non-destearinated	85
Napthole, Inc. 416 Division Street Boonton, New Jersey	Vitand	400
	Anchor Brand Vitamin A & D Oil	85
National Oil Products Co., Inc. First & Essex Streets Harrison, New Jersey	Nopco Cod Liver Oil	85
	Nopco XX	400
	Nopco X	200
Pratt Food Company Hammond, Indiana	Pratt's Vitamin Tested Cod Liver Oil	85
Silmo Chemical Corporation Vineland, New Jersey	Poultry D Vitamin A & D Feeding Oil	85
	Silmo XX	400
	Silmo X	200
E. R. Squibb & Sons 745 Fifth Avenue New York, N. Y.	Exadol, High Potency Vitamin A & D Oil	400
The Swiftide Company 28 Widgery Wharf Portland, Maine	Swiftide Brand Cod Liver Oil	85
Vitamol, Inc. 91 Wall Street New York, N. Y.	Vitamol XX	400
White Laboratories, Inc. 113 North 13th Street Newark, New Jersey	Clo-Trate	400
	Clo-Trate "200"	200
Whitmoyer Laboratories, Inc. Myerstown, Pennsylvania	Whitmoyer Quality Cod Liver Oil	85
	Five X Concentrate	425